

DETAILED ACTION

Supplemental Action

Allowable Subject Matter

1. Claims 1-3, 5-17, 19-32 and 34-42 are allowed.

The following is an examiner's statement of reasons for allowance: Claims 1-3, 5-17, 19-32 and 34-42 are allowed since certain key features of the claimed invention are not taught or fairly suggested by prior art. **As to claim 1**, "a controller to determine at least one of positioning and relative movement for a graphical-user interface element displayed on the display, based on the images captured by the image-capturing mechanism, by determining: a first location of the at least one corner of the display in the first image, a second location of the at least one corner of the display in the second image, and an amount and a direction of movement of the at least one corner of the display from the first location in the first image to the second location in the second image".

As to claim 16, "wherein at least one of positioning and relative movement for a graphical-user interface element displayed on the display is determined based on the images captured by the image-capturing mechanism, by determining: a first location of the at least one corner of the display in the first image, a second location of the at least one corner of the display in the second image, and an amount and a direction of movement of the at least one corner of the display from the first location in the first image to the second location in the second image". **As to claims 29**, "means for determining relative movement for a graphical-user interface element displayed on the display based on a change in position of the at least one corner of the display between the

first image and [[a]] the second image captured by the image-capturing mechanism , by determining: a first location of the at least one corner of the display in the first image, a second location of the at least one corner of the display in the second image, and an amount and a direction of movement of the at least one corner of the display from the first location in the first image to the second location in the second image”. **As to claim 30**, “means for determining positioning for a graphical-user interface element displayed on the display based on a position of the at least one corner of the display within an image captured by the image-capturing mechanism relative to a field of view of the image, by determining: a first location of the at least one corner of the display in the first image, a second location of the at least one corner of the display in the second image, and an amount and a direction of movement of the at least one corner of the display from the first location in the first image to the second location in the second image”. **As to claim 31**, “determining an amount and a direction of movement of the at least one corner of the display between the first image and the second image; and, causing a graphical-user interface element displayed on the display by the computing device to move based on the amount and the direction of the movement of the at least one corner of the display~ wherein determining the amount and the direction of movement of the at least one corner of the display between the first image and the second image comprises: determining a first location of the at least one corner of the display in the first image; determining a second location of the at least one corner of the display in the second image; and, determining the amount and the direction of movement of the at least one corner of the display from the first location in the first image to the second location in the second image”. **As to claim 35**, “determining a location of at least the center of the display within the image; determining an offset amount and an offset direction between the location of at

least the center of the display within the image and a center of the image; and, causing a graphical-user interface element to be displayed on the display by the computing device at a position based on the offset amount and the offset direction between the location of at least the center of the display within the image and the center of the image". As to claim 38, " providing a controller of the pointing device capable of determining at least one of positioning and relative movement for a graphical-user interface element displayed on the display, based on the images captured by the image-capturing mechanism, by determining: a first location of the at least one corner of the display in the first image, a second location of the at least one corner of the display in the second image, and an amount and a direction of movement of the at least one corner of the display from the first location in the first image to the second location in the second image".

The closest prior Sukthankar et al. (6,618,076) teach automatically calibrate a projector camera system to recover the mapping from a given point in the source image and its corresponding point in the camera image, Hansen (6,275,214 B1) teaches a remotely controlling a computer having a screen for displaying output from the computer and having an internal cursor generated by the computer, however, singularly or in combination with other prior art, fail to anticipate or render the claimed limitations, at least "" a controller to determine at least one of positioning and relative movement for a graphical-user interface element displayed on the display, based on the images captured by the image-capturing mechanism, by determining: a first location of the at least one corner of the display in the first image, a second location of the at least one corner of the display in the second image, and an amount and a direction of movement of the at least one corner of the display from the first location in the first image to the second location in the second image".

2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mansour M. Said whose telephone number is 571-272-7679. The examiner can normally be reached on Monday through Thursday from 8:30-6:00 P.M. The examiner can also be reached on alternate Friday from 8:30 a.m. to 5:00 p.m. EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: 571-273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to the Customer Service Window at the Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

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/MANSOUR M SAID/

Examiner, Art Unit 2629